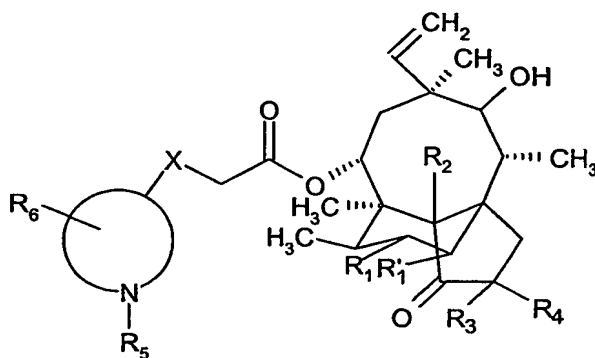


Patent claims

1. A compound of formula



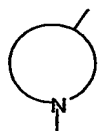
- 5 wherein

R_1 and R_1' are hydrogen or deuterium,

R_2 , R_3 and R_4 are hydrogen or deuterium,

R_5 is the residue of an amino acid,

X is S or N-ALK,

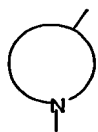


- 10 is piperidinyl or tetrahydropyridinyl,

ALK is (C_{1-4}) alkyl, and

R_6 is hydrogen, hydroxy or (C_{2-12}) acyloxy,

with the proviso that if



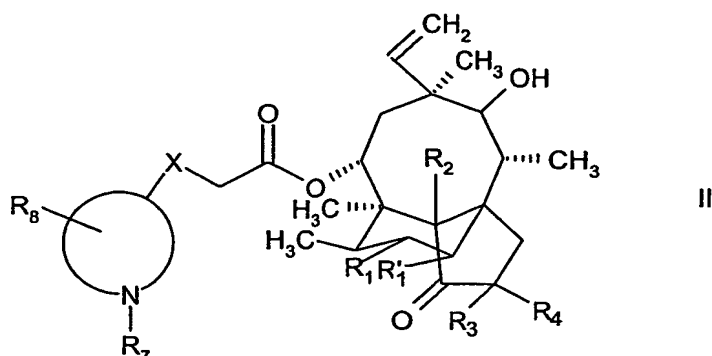
is piperidinyl and X is S, then R_6 is other than hydrogen.

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2. A compound according to claim 1 which is selected from the group consisting of
 14-O-[4-hydroxy-N-valyl-piperidin-3-yl]-sulfanylacetylmutilin,
 14-O-[3-hydroxy-N-valyl-piperidin-4-yl]-sulfanylacetylmutilin,
 14-O-[3-hydroxy-N-histidinyl-piperidin-4-yl]-sulfanylacetylmutilin,
 14-O-[3-hydroxy-N-valyl-piperidin-4-yl]-methylaminoacetylmutilin,
 14-O-[4-hydroxy-N-valyl-piperidin-3-yl]-methylaminoacetylmutilin,
 14-O-[N-valyl]-1,2,3,6-tetrahydropyridin-3-yl]-sulfanylacetylmutilin, and
 14-O-[N-valyl]-1,4,5,6-tetrahydropyridin-4-yl]-sulfanylacetylmutilin.

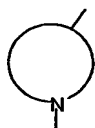
20

3. A compound of formula



wherein

- 5 R_1 and $R_{1'}$ are hydrogen or deuterium,
 R_2 , R_3 and R_4 are hydrogen or deuterium,
 R_7 is a protecting group or the residue of an amino acid wherein the amino group is protected,
 X is S or N-ALK,

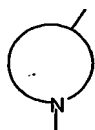


- 10 is piperidinyl or tetrahydropyridinyl,

ALK is (C_{1-4}) alkyl, and

R_8 is hydrogen, hydroxy or (C_{2-12}) acyloxy,

with the proviso that if



is piperidinyl and X is S, then R_8 is other than hydrogen.

- 15 4. A compound according to claim 3 selected from the group consisting of
 14-O-[N-BOC-4-hydroxy-piperidin-3-yl]-sulfanylacetylmutilin,
 14-O-[N-BOC-3-hydroxy-piperidin-4-yl]-sulfanylacetylmutilin,
 14-O-[4-hydroxy-N-BOC-piperidin-3-yl]-methylaninoacetylmutilin,
 20 14-O-[3-hydroxy-N-BOC-piperidin-4-yl]-methylaninoacetylmutilin,
 14-O-[N-BOC-1,4,5,6-tetrahydropyridin-4-yl]-sulfanylacetylmutilin,
 14-O-[4-hydroxy-N-(N-BOC-valyl)-piperidin-3-yl]-sulfanylacetylmutilin,
 14-O-[3-hydroxy-N-(N-BOC-valyl)-piperidin-4-yl]-sulfanylacetylmutilin,

14-O-[4-acetoxy-N-(N-BOC-valyl)-piperidin-3-yl]-sulfanylacetylmutilin,
14-O-[3-acetoxy-N-(N-BOC-valyl)-piperidin-4-yl]-sulfanylacetylmutilin,
14-O-[3-hydroxy-N-(N-BOC-histidiny)-piperidin-4-yl]-sulfanylacetylmutilin,
14-O-[3-hydroxy-N-(N-BOC)-valyl-piperidin-4-yl]-methy-laminoacetylmutilin,
5 14-O-[4-hydroxy-N-(N-BOC)-valyl-piperidin-3-yl]-methy-laminoacetylmutilin,
14-O-[N-(N-BOC-valyl)-1,4,5,6-tetrahydropyridin-4-yl]-sulfanylacetylmutilin,
14-O-[N-(N-BOC-valyl)-1,2,3,6-tetrahydropyridin-3-yl]-sulfanylacetylmutilin.

5. A compound of any one of claims 1 to 4 in the form of a salt.

6. A compound of any one of claims 1 to 5 for use as a pharmaceutical.

7. A pharmaceutical composition comprising a compound of any one of claims 1 to 5 in association with at least one pharmaceutical excipient.

8. A pharmaceutical composition according to claim 7 further comprising another pharmaceutically active agent.

9. A compound of any one of claims 1 to 5 or a pharmaceutical composition of claim 7 or 8 for use in the preparation of a medicament for the treatment of microbial diseases.

10. A method of treatment of microbial diseases comprising administering to a subject in need of such treatment an effective amount of a compound of any one of claims 1 to 5 or of a pharmaceutical composition of any one of claims 7 or 8.